

CLAIMS

1. A component for encapsulation of micro electromechanical systems integrated in a cavity, comprising a substrate wherein the cavity is formed, a cover presenting a front face and a rear face, arranged on the substrate, and means for sealing the cover onto the substrate designed to make the cavity hermetic, component wherein the cover comprises at least one groove passing through the cover and defining in the cover a peripheral zone and a central zone completely covering the cavity, a sealing material being deposited at the bottom of the groove.
2. Encapsulation component according to claim 1, wherein the central zone is joined to the peripheral zone, on the front face of the cover, by arms securely fixed to the cover.
3. Encapsulation component according to claim 1, wherein the cover comprises at least one additional groove in the central zone.
4. Encapsulation component according to claim 1, wherein the peripheral zone of the cover comprises at least one hole passing through the cover through which hole a wire passes for electrical connection to the substrate.
5. Encapsulation component according to claim 1, wherein the sealing material comprises a layer of molten glass.
6. Encapsulation component according to claim 1, wherein the cover comprises an insulating layer deposited in the grooves so as to electrically insulate the sealing material from the cover.
7. Encapsulation component according to claim 1, wherein the central zone of the cover comprises at least one additional cavity on the rear face of the cover.
8. A fabrication process of an encapsulation component according to claim 1, comprising:
 - a first stage of making in the cover at least one groove passing through the cover and defining a central zone and a peripheral zone in the cover,
 - a second stage of bringing the substrate and cover into contact so that the

- central zone completely covers a cavity of the substrate,
- a third stage of sealing by depositing a sealing material at the bottom of the groove.

9. Fabrication process according to claim 8, wherein deposition of the sealing material comprises deposition of a thin film.

10. Fabrication process according to claim 9, wherein deposition of the thin film is performed by a CVD process.

11. Fabrication process of an encapsulation component according to claim 1, comprising:

- a first stage of making in the front face of the cover at least one groove having a depth smaller than the thickness of the cover and defining a central zone and a peripheral zone in the cover,
- a second stage of at least partial filling of the groove with glass powder and melting of the glass,
- a third stage of removing a sufficient thickness from the rear face of the cover to uncover the glass contained in the groove,
- a fourth stage of bringing the substrate and cover into contact so that the central zone completely covers the cavity of the substrate, and of sealing by melting of the glass.

12. Fabrication process according to claim 11, comprising a selective etching stage of the rear face of the cover between the third and fourth stages so that the glass contained in the groove is salient.

13. Fabrication process according to claim 8, wherein bringing the substrate and cover into contact is achieved by applying an electrical voltage between the substrate and cover.

14. Fabrication process according to claim 8, comprising, in the first stage, machining, in the rear face of the cover, of a hole having a depth smaller than the thickness of the cover, and a stage of thinning the front face of the cover after the sealing stage.

15. Fabrication process according to claim 8, comprising, before the stage of

bringing the substrate and cover into contact, a stage of making a channel in the rear face of the cover locally preventing complete plugging by the sealing material during the sealing stage, enabling subsequent sealing in a controlled atmosphere.

16. Fabrication process according to claim 8, comprising a stage of making a hole in the cover enabling subsequent sealing in a controlled atmosphere.